

What is Claimed is:

5 1. A method for measuring temperature at a site within a patient during a medical procedure comprising the steps of:

providing a medical device having a position sensor;

10 placing the medical device within the patient and positioning the position sensor at the site;

providing a temperature measurement signal to the position sensor;

15 measuring voltage at the position sensor;

determining a resistance value based on the temperature measurement signal and the voltage; and

20 determining a temperature value based on the resistance value.

25 2. The method according to Claim 1, further comprising determining the temperature value based on an algorithm.

3. The method according to Claim 2, further comprising providing a resistance drift factor to the resistance value in accordance with the algorithm.

5 4. The method according to Claim 1, further comprising generating an externally applied field at the site within the patient.

10 5. The method according to Claim 4, further comprising generating the externally applied field by a generator signal, the generator signal being at different frequency than the temperature measurement signal.

15 6. The method according to Claim 5, wherein the generator signal is used to generate an AC magnetic field.

20 7. The method according to Claim 6, wherein the generator signal is 3 KHz.

8. The method according to Claim 7, wherein the temperature measurement signal is 4 KHz.

25 9. The method according to Claim 1, further comprising using a signal processor for measuring the voltage at the position sensor.

10. The method according to Claim 9, further comprising determining the resistance value using the signal processor.

5 11. The method according to Claim 10, further comprising determining the temperature value using the signal processor.

10 12. The method according to Claim 11, further comprising performing an ablation procedure at the site with the medical device.

15 13. A method for adjusting for temperature sensitivity of a medical device having a position sensor, the method comprising the steps of:

providing a medical device having a position sensor;

measuring voltage at the position sensor;

20 determining a resistance value from the measured voltage;

25 determining a temperature value at the position sensor based on the resistance value; and

determining a sensitivity at the position sensor based on the temperature.

14. The method according to Claim 13, further comprising adjusting location information from the position sensor based on the sensitivity.

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15. The method according to Claim 14, further comprising adjusting position and orientation coordinates from the position sensor based on the sensitivity.

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16. The method according to Claim 15, further comprising determining the temperature value at the position sensor by applying a resistance drift factor to the resistance value.

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17. The method according to Claim 16, further comprising recalling the resistance drift factor from a memory of a signal processor.

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18. The method according to Claim 17, further comprising establishing the resistance drift factor from a resistance versus temperature profile of the position sensor.

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19. The method according to Claim 15, further comprising determining the sensitivity at the position sensor by applying a sensitivity drift factor to the temperature value.

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